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10/010,270	12/06/2001	Harold J. Plourde JR.	A-7182	5626

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SCIENTIFIC-ATLANTA, INC.		
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EXAMINER	
NGUYEN BA, HOANG VU A	

ART UNIT	PAPER NUMBER
2623	

NOTIFICATION DATE	DELIVERY MODE
08/10/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PTOmail@sciatl.com

**Office Action Summary**

Application No.

10/010,270

Applicant(s)

PLOURDE ET AL.

Examiner

Hoang-Vu A. Nguyen-Ba

Art Unit

2623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 May 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3 and 5-47 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5-47 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. This action is responsive to the amendment filed May 29, 2007.
2. Claims 1-3 and 5-47 are pending. Claims 1, 23, 24 and 46 are independent claims.

### ***Response to Amendments***

3. Per Applicants' request, Claim 4 has been canceled; Claims 1, 12, 23, 24 and 46 have been amended; and new Claim 47 has been added.
4. The rejection of Claim 12 under 35 U.S.C. § 112, second paragraph as being indefinite is withdrawn in view of Applicants' amendment to this claim to particularly point out and distinctly claim the subject matter which Applicants regard as the invention.

### ***Response to Arguments***

5. Applicants' arguments with respect to Claims 1-3 and 5-47 have been considered but are moot in view of the new ground(s) of rejection presented in this Office action.

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 1-3 and 5-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,678,463 to Pierre et al. ("Pierre").

### Claim 1

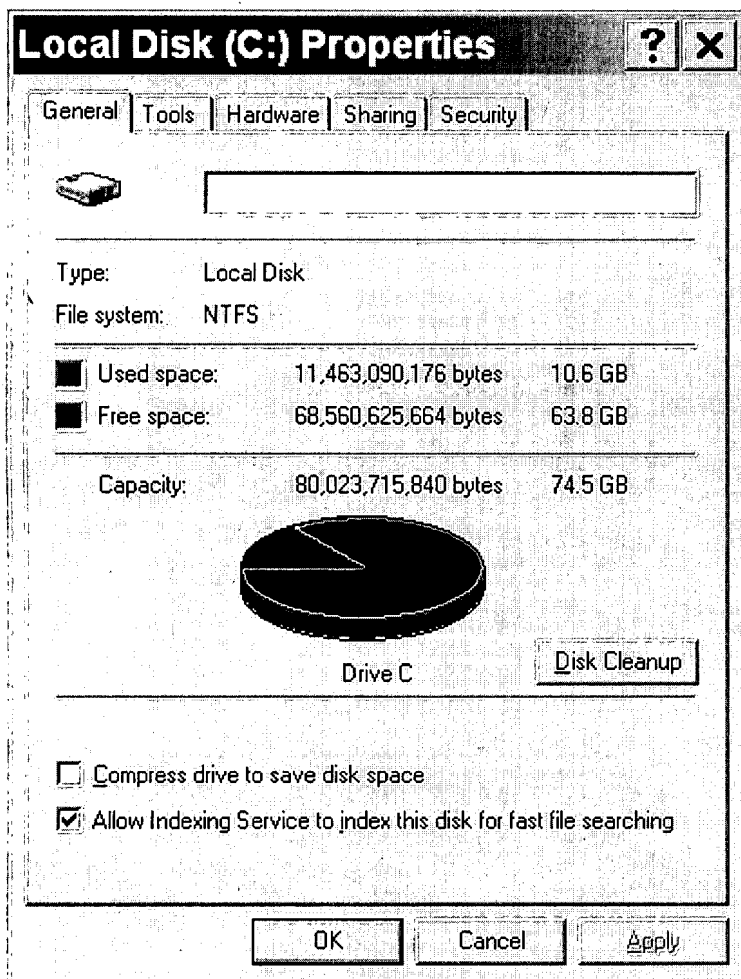
Pierre discloses *a system (see at least FIG. 2) for managing the allocation and storage of media content instance files in a hard disk of a storage device coupled to a media client device in a subscriber television system, comprising:*

*a memory for storing logic (see at least FIG. 2, item 16);*

*a buffer space in the hard disk for buffering media content instances as buffered media content instance files (see at least FIGs. 4-6, item 90); and*

*a processor (see at least FIGs. 2-3, item 30) configured with the logic to track the size of permanent media content instance files and the buffered media content instance files to provide an indication of available free space, such that the indication is independent of the buffer space (see at least FIG. 7, steps 106, 120, 140; 6:7-7:64).*

Pierre does not specifically disclose that the indication of available space is a numerical indication of an amount of available free space. However, Official notice is taken that to provide a numerical indication of an amount of available free space is well known in the art. See below a screen shot showing a numerical indication of an amount of available free space displayed in the Properties of Drive C in Windows® Operating System:



It would have been obvious to a person having ordinary skill in the art at the time the invention was made to use the above feature of Windows® Operating System in Pierre, as this would indicate the amount of free remaining space on the hard disk, thereby helping a user manage more efficiently his/her program recording.

## Claim 2

The rejection of base claim 1 is incorporated. Pierre further discloses *wherein the processor is further configured with the logic to provide a user interface, responsive to a user input, wherein the user interface provides the indication of available free space for permanently recording*

*media content instances, wherein the permanently recorded media content instances are configured as the permanently recorded media content instance files* (see at least 4:44-50; FIG. 7, step 144).

### Claim 3

The rejections of base claim 1 and intervening claim 2 are incorporated. Pierre further discloses *wherein the permanently recorded media content instance files can be deleted from the storage device* (see at least FIG. 7, step 150).

### Claim 4 (canceled)

~~The rejections of base claim 1 and intervening claim 2 are incorporated. Pierre further discloses *wherein the user input is implemented with a remote control device* (see at least 7:65-8:7).~~

### Claim 5

The rejections of base claim 1 and intervening claim 2 are incorporated. Pierre further discloses *wherein the permanently recorded media content is from the buffer space* (see at least 6:37-7:39).

### Claim 6

The rejections of base claim 1 and intervening claim 2 are incorporated. Pierre further discloses *wherein the permanently recorded media content is a scheduled recording initially written to non-buffer space* (see at least 6:37-7:39).

### Claim 7

The rejection of base claim 1 is incorporated. Pierre further discloses *wherein the buffer space, the available free space, and permanently recorded space are located on the hard disk* (see at least 6:37-43).

#### **Claim 8**

Pierre further discloses *wherein the buffer space and permanently recorded space are allocated from the free space on the hard disk* (see at least 6:37-9:32).

#### **Claim 9**

The rejection of base claim 1 is incorporated. Pierre further discloses *wherein the buffer space and permanently recorded space have physical locations on the hard disk* (see at least 6:37-8:38).

#### **Claim 10**

The rejection of base claim 1 is incorporated. Pierre further discloses *wherein the buffer space and the available free space is measured in units of time* (see at least 6:9-22).

#### **Claim 11**

The rejection of base claim 1 is incorporated. Pierre further discloses *wherein the buffer space and the available free space is measured in units of hard disk space* (see at least FIGs. 4-6).

#### **Claim 12**

The rejection of base claim 1 is incorporated. Pierre further discloses *wherein the processor is further configured with the logic to ~~buffer~~ convert analog broadcast media content instances,*

*received at a communications interface, ~~as~~ into digitally compressed media content instances stored in a buffer (see at least 5:27-30).*

### **Claim 13**

The rejection of base claim 1 is incorporated. Pierre further discloses *wherein the processor is further configured with the logic to buffer an analog signal received at a connector from a consumer electronics device, as a digitally compressed media content instance* (see at least 3:61-4:8).

### **Claim 14**

The rejection of base claim 1 is incorporated. Pierre further discloses *wherein the processor is further configured with the logic to buffer digital broadcast media content instances, received at a communications interface, as digitally compressed media content instances* (see at least 3:61-4:8).

### **Claim 15**

The rejection of base claim 1 is incorporated. Pierre further discloses *wherein the processor is further configured with the logic to buffer digital media-on-demand media content instances, received at a communications interface from a remote server, as digitally compressed media content instances* (see at least 3:61-4:8; 4:20-29).

### **Claim 16**

The rejection of base claim 1 is incorporated. Pierre further discloses *wherein the processor is further configured with the logic to buffer digital media content instances, received at a digital communications port from a local network, as digitally compressed media content instances* (see at least 3:61-4:14).



### **Claim 17**

The rejection of base claim 1 is incorporated. Pierre further discloses *wherein the processor is further configured with the logic to buffer digital media content instances, received at a digital communications port from a local device, as digitally compressed media content instances* (see at least 3:61-4:14).

### **Claim 18**

The rejection of base claim 1 is incorporated. Pierre does not specifically disclose *wherein the processor is further configured with the logic to determine the available free space after subtracting buffer space capacity from total disk space*. However, this logic is deemed inherent to Pierre because Pierre does disclose the step of determining whether there is sufficient contiguous space in storage device for the entire program (FIG. 7, step 106) and for remainder of the program (FIG. 7, step 120). Without subtracting buffer space capacity from total disk space, the above determining step would not be possible.

### **Claim 19**

The rejection of base claim 1 is incorporated. Pierre does not specifically disclose *wherein the processor is configured with the logic to reduce the available free space by the amount of the space used for the permanent media content instance files*. However, the reducing the available free space is deemed not only inherent but an unpatentable feature since this step is a direct result of the step of saving a permanent media content instance file. If the size of the new permanent media content instance file is larger than the existing one, then the result will be the reduction of the available free space.

### **Claim 20**

The rejection of base claim 1 is incorporated. Pierre further discloses *wherein the processor is configured with the logic to increase the available free space by the amount of the space recovered from a deleted permanent media content instance files* (see at least FIG. 7, step 116, 118, 128, 150, 148).

#### **Claim 21**

The rejection of base claim 1 is incorporated. Pierre further discloses *wherein the indication of the free space available is configured in time of space available for the permanent media content instance files* (see at least 6:9-22).

#### **Claim 22**

The rejection of base claim 1 is incorporated. Pierre further discloses *wherein the free space indication is unaffected by writes to and deletions from the buffer space* (see at least 6:4-7:39).

#### **Claim 23**

Since Claim 23 is an independent claim that is a combination of Claims 1-22, the respective rejections are thus applied.

#### **Claim 24**

Pierre discloses:

*buffering media content instances into buffer space as buffered media content instance files* (see at least FIGs. 4-6, items 90);

*tracking the size of permanent media content instance files and buffered media content instance files* (see at least FIG. 7, steps 106, 120, 140; 6:7-7:64); and

*providing an indication of available free space, such that the indication is independent of the buffer space* (see at least FIG. 7, steps 106, 120, 140; 6:7-7:64).

Pierre does not specifically disclose a numerical indication of an amount of available free space. However, Official notice is taken that to provide a numerical indication of an amount of available free space is well known in the art. See below a screen shot showing a numerical indication of an amount of available free space displayed in the Properties of Drive C in Windows® Operating System I Claim 1.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to use the above feature of Windows® Operating System in Pierre, as this would indicate the amount of free remaining space on the hard disk, thereby helping a user manage more efficiently his/her program recording.

#### **Claim 25**

The rejection of base claim 24 is incorporated. Since Claim 25 recites the same feature of Claim 2, the same rejection is thus applied.

#### **Claim 26**

The rejections of base claim 24 and intervening claim 25 are incorporated. Since Claim 26 recites the same feature of Claim 3, the same rejection is thus applied.

#### **Claim 27**

The rejections of base claim 24 and intervening claim 25 are incorporated. Since Claim 27 recites the same feature of Claim 4, the same rejection is thus applied.

**Claim 28**

The rejections of base claim 24 and intervening claim 25 are incorporated.  
Since Claim 28 recites the same feature of Claim 5, the same rejection is thus applied.

**Claim 29**

The rejections of base claim 24 and intervening claim 25 are incorporated.  
Since Claim 29 recites the same feature of Claim 6, the same rejection is thus applied.

**Claim 30**

The rejection of base claim 24 is incorporated. Since Claim 30 recites the same feature of Claim 7, the same rejection is thus applied.

**Claim 31**

The rejection of base claim 24 is incorporated. Since Claim 31 recites the same feature of Claim 8, the same rejection is thus applied.

**Claim 32**

The rejection of base claim 24 is incorporated. Since Claim 32 recites the same feature of Claim 9, the same rejection is thus applied.

**Claim 33**

The rejection of base claim 24 is incorporated. Since Claim 33 recites the same feature of Claim 10, the same rejection is thus applied.

**Claim 34**

The rejection of base claim 24 is incorporated. Since Claim 34 recites the same feature of Claim 11, the same rejection is thus applied.

**Claim 35**

The rejection of base claim 24 is incorporated. Since Claim 35 recites the same feature of Claim 12, the same rejection is thus applied.

**Claim 36**

The rejection of base claim 24 is incorporated. Since Claim 36 recites the same feature of Claim 13, the same rejection is thus applied.

**Claim 37**

The rejection of base claim 24 is incorporated. Since Claim 37 recites the same feature of Claim 14, the same rejection is thus applied.

**Claim 38**

The rejection of base claim 24 is incorporated. Pierre further discloses *buffering digital media-on-demand media content instances, received at a communications interface from a remote server, as digitally compressed media content instances* (see at least 4:4-8).

**Claim 39**

The rejection of base claim 24 is incorporated. Pierre further discloses *buffering digital media content instances, received at a digital communications port from a local server, as digitally compressed media content instances* (see at least 4:4-8).

**Claim 40**

The rejection of base claim 24 is incorporated. Pierre further discloses *buffering digital media content instances, received at a digital communications port from a local device, as digitally compressed media content instances* (see at least 4:4-8).

**Claim 41**

The rejection of base claim 24 is incorporated. Since Claim 41 recites the same feature of Claim 18, the same rejection is thus applied.

**Claim 42**

The rejection of base claim 24 is incorporated. Since Claim 42 recites the same feature of Claim 19, the same rejection is thus applied.

**Claim 43**

The rejection of base claim 24 is incorporated. Since Claim 43 recites the same feature of Claim 20, the same rejection is thus applied.

**Claim 44**

The rejection of base claim 24 is incorporated. Since Claim 44 recites the same feature of Claim 21, the same rejection is thus applied.

**Claim 45**

The rejection of base claim 24 is incorporated. Since Claim 45 recites the same feature of Claim 24, the same rejection is thus applied.

**Claim 46**

Since Claim 46 is an independent claim that is a combination of Claims 24-45, the rejections of these claims are thus applied.

#### **Claim 47**

The rejection of base claim 1 is incorporated. Pierre further discloses *wherein the processor is further configured with the logic to provide an indication that insufficient free space is available for a requested recording*. See Claim 1.

#### ***Conclusion***

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hoang-Vu "Antony" Nguyen-Ba whose telephone number is (571) 272-3701. The examiner can normally be reached on Tuesday-Friday from 7:00 am to 5:30 pm.

If attempts to reach the examiner are unsuccessful, the examiner's supervisor, John Miller can be reached at (571) 272-7353.

The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2600 Group receptionist (571) 272-2600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at (866) 217-9197 (toll-free).



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July 23, 2007